CLAIMS

What is claimed is:

1. A polypeptide consisting essentially of a first amino acid sequence comprising a comprising a transduction sequence of hPER1 linked to a second amino acid sequence comprising a cytotoxic T lymphocyte epitope, wherein the transduction sequence is RRHHRRSKAKRSR.
2. The polypeptide of claim 1 wherein a linker sequence is inserted between the first and second amino acid sequences.
3. The polypeptide of claim 2 wherein the linker sequence naturally occurs with the second amino acid sequence.
4. The polypeptide of claim 2 wherein the linker sequence does not naturally occur with the second amino acid sequence.
5. The polypeptide of claim 1 wherein the second amino acid sequence is derived from a tumor antigen, an antigen of an infectious agent, or an autoimmune antigen.
6. A composition comprising a polypeptide of any one of claims 1-5 in a pharmaceutically acceptable carrier.
7. A method for immunizing a host comprising administering to the host a composition of claim 6.
8. A method for immunizing a host comprising admixing a polypeptide or composition of any of claims 1-7 with dendritic cells to generate peptide-loaded dendritic cells and administering the peptide-loaded dendritic cells to the host.
9. An isolated recombinant DNA molecule comprising a first DNA sequence encoding a cytotoxic T lymphocyte epitope joined to a second DNA sequence encoding a transduction sequence of hPER1, wherein the transduction sequence is RRHHRRSKAKRSR.
10. The DNA molecule of claim 21 wherein a DNA sequence encoding a linker amino acid sequence is inserted between the first and second amino acid sequences.
11. The DNA molecule of claim 22 wherein the linker amino acid sequence naturally occurs with the second amino acid sequence.
12. The DNA molecule of claim 11 wherein the linker sequence does not naturally occur with the second amino acid sequence.

13. The DNA molecule of any one of claims 9-12 wherein the first amino acid sequence is derived from a tumor antigen, an antigen of an infectious agent, or an autoimmune antigen.

14. A composition comprising a recombinant DNA molecule of any one of claims 9-14.

15. A method for immunizing a host comprising administering a polypeptide consisting essentially of a first amino acid sequence comprising a polypeptide, recombinant DNA or composition of any one of claims 1-14 administered by a subcutaneous, intradermal, or intranasal route.

16. The method of claim 16 wherein the cytotoxic T lymphocyte epitope is derived from a tumor antigen, an infectious agent, or an autoimmune antigen.

17. A method for immunizing a host comprising administering by a subcutaneous, intradermal, or intranasal route a targeted immunogen consisting essentially a polypeptide, recombinant DNA or composition of any one of claims 1-14.

18. A method for immunizing a host comprising administering by a subcutaneous, intradermal, or intranasal route a targeted immunogen consisting essentially of a polypeptide comprising a comprising a transduction sequence of hPER1 linked to a second amino acid sequence comprising a cytotoxic T lymphocyte epitope.

19. A method for immunizing a host comprising administering by a subcutaneous, intradermal, or intranasal route a targeted immunogen consisting essentially of a recombinant DNA molecule comprising a first DNA sequence encoding a cytotoxic T lymphocyte epitope joined to a second DNA sequence encoding a transduction sequence of hPER1, recombinant DNA

20. A method for immunizing a host comprising administering by a subcutaneous, intradermal, or intranasal route a composition comprising a polypeptide of claim 18 or a recombinant DNA molecule of claim 19.

21. The method of any one of claims 17-20 wherein the cytotoxic T lymphocyte epitope is derived from a tumor antigen, an infectious agent, or an autoimmune antigen.